

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

9 DEC 1941

Date of writing Report. 29-11-41 When handed in at Local Office. 3/12/41 Port of West Hartlepool

No. in Survey held at West Hartlepool Date, First Survey. 28-10-41 Last Survey. 27-11-41
Reg. Book. (Number of Visits. 4)36345 on the "EMPIRE MARLOWE" Tons {Gross. 6142.15.
Net. 4841.71.

Built at West Hartlepool By whom built Wm. Gray & Co. Yard No. 1122 When built 1941

Owners Ministry of War Transport Port belonging to West Hartlepool

Electrical Installation fitted by Wm. Gray & Co. Contract No. 1122 When fitted 1941

Is vessel fitted for carrying Petroleum in bulk No Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. No Sub.Sig. No.

Have plans been submitted and approved Yes System of Distribution Two wire insulated Voltage of supply for Lighting 110

Heating Power 110 Direct or Alternating Current, Lighting Yes Power Yes If Alternating Current state periodicity Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off Yes Are turbine emergency governors fitted with a

trip switch as per Rule Generators, are they compound wound Yes, are they level compounded under working conditions Yes,

if not compound wound state distance between generators and from switchboard Where more than one generator is fitted are they

arranged to run in parallel No, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole

negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes Have certificates of

test for machines under 100 kw. been supplied Yes and the results found as per rule Yes Are the lubricating arrangements and the construction

of the generators as per rule Yes Position of Generators Engine room at stern end, starboard side, inboard

of main engine, is the ventilation in way of generators satisfactory Yes are they clear of inflammable material Yes, if situated

near unprotected combustible material state distance from same horizontally and vertically, are the generators protected from mechanical

injury and damage from water, steam and oil Yes, are the bedplates and frames earthed Yes and the prime movers and generators in metallic

contact Yes Switchboards, where are main switchboards placed in aft engine room bulkhead on raised

platform

are they in accessible positions, free from inflammable gases and acid fumes Yes, are they protected from mechanical injury and damage from water, steam

and oil Yes, if situated near unprotected combustible material state distance from same horizontally and vertically, what insulation

material is used for the panels "Sindanyo" if of synthetic insulating material is it an Approved Type Yes, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule Is the frame effectually earthed Yes

Is the construction as per Rule Yes, including accessibility of parts Yes, absence of fuses on the back of the board Yes, individual fuses

to pilot and earth lamps, voltmeters, etc. Yes, locking of screws and nuts Yes, labelling of apparatus and fuses Yes, fuses on the "dead"

side of switches Yes Description of Main Switchgear for each generator and arrangement of equaliser switches a double-pole

single-throw quick-break knife switch and double-pole fuse.

and for each outgoing circuit a double pole, single-throw, quick-break knife switch and double-pole fuse.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard one

ammeters one voltmeters synchronising devices For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection Earth Testing, state means provided E lamps connected to E through bus of fuses

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type Yes, are all fuses labelled as

per Rule Yes If circuit breakers are provided for the generators, at what overload current did they open when tested, are the reversed current

protection devices connected on the pole opposite to the equaliser connection, have they been tested under working conditions, and at what current

did they operate Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule Yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules Yes, if otherwise than as per Rule are they of an approved type

state maximum fall of pressure between bus bars and any point under maximum load 4.4 V, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets Yes Are paper insulated and varnished cambric insulated cables sealed at the ends Yes fitted

DESCRIPTION.	KILOWATTS.	CONDUCTOR.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Cable or Per Pole.	Cross-sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	12.5	1	19/083	113.	118	60	V.I.R.	A. S. Steel Conduit
" " <u>Excitation</u>								
<i>de generating generator</i>	12.5	1	19/083	84	118	70	"	" "
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

[illegible]

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.
All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.
The foregoing is a correct description.

WILLIAM BRAY & CO. LTD.
Thos. S. Simpson

Electrical Engineers.

Date

4/12/1941

COMPASSES.

Minimum distance between electric generators or motors and standard compass. 117 ft.

Minimum distance between electric generators or motors and steering compass. 113 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 14 Ampères on the feet from standard compass 7 feet from steering compass.

A cable carrying 14 Ampères 7 feet from standard compass on the feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power 4/10

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted Yes

The maximum deviation due to electric currents was found to be Nil degrees on every course in the case of the standard compass, and Nil degrees on every course in the case of the steering compass.

Thos. S. Simpson

Builder's Signature.

Date

4/12/1941

Is this installation a duplicate of a previous case 4/10

If so, state name of vessel

"Empire Ocean"

Plans. Are approved plans forwarded herewith Yes.

If not, state date of approval

30.7.40 & 29.8.40

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith Yes.

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

The electrical equipment of this vessel has been installed under special survey, in accordance with the approved plans and the Ministry of Shipping Specification and Amendments thereto. The materials used are of good quality and design and the workmanship is good. On completion trials of the equipment were witnessed and found satisfactory, and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted
J.H.
4/12/41

Total Capacity of Generators 12½ (+12½ D.C.) Kilowatts.

The amount of Fee ... £ 16 : 5 : 0

When applied for,

.....19.....

Travelling Expenses (if any) £ : :

When received.

.....19.....

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

See Hpl. J.E. 18222



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Foundation